U.S. COAST GUARD / SITUATION REPORT
Mississippi Canyon 252 Sub-Sea Dispersant Injection Status POLREP

Unified Area Command (Robert, LA)

Subject: **POLREP # 1**
Initial (Update)

Mississippi Canyon 252 Sub-Sea Dispersant Injection Status

Latitude: 28.755286 **Longitude: -88.386402**

To: DIST

From: AREA COMMAND, ROBERT, LOUISIANA

Date: 5/17/2010

Reporting Period: 15-29 May, 2010
Update: 0900 29 May 2010

1. Current Activities

1.1 Operations Section (Sub-Sea Dispersant Operations Only)

1.1.1 Narrative

As an emergent strategy, the application of sub-sea dispersants to mitigate the sea surface spreading of oil, has been implemented again (specifically the COREXIT 9500) is being injected into the expelling oil plume at the sea floor at the depth of 5,000 feet (the depth from surface of the MC 252 oil plume) at a rate of approximately 10 gallons per minute.

This is considered as an operational trial of the proof of concept method previously performed for this event in discrete test phases. Currently, BP has authority from the EPA and the Coast Guard per its Dispersant Monitoring Directive for Subsurface Dispersant Application dated 10 May 2010 and modified on 14 MAY 2010 as Addendum 1, to conduct sub-sea dispersant injection of COREXIT 9500. Additionally, stakeholders within the response effort continue to monitor any potential environmental impacts of these operations.

1.1.2 Co-Requisite Vessel Monitoring Requirements

The R/V BROOKS McCALL has been O/S since 5/15/2010, and is required to perform sampling in accordance with the 14 May 2010 Addendum 1 to the Dispersant Monitoring and Assessment Directive of 09 May both of which were signed and approved by FOSC RADM Mary Landry, and Sam Coleman, Director of Superfund Division, EPA Region VI.

A brief summary of testing required to be performed is IAW the Dispersant Monitoring and Assessment Directive is as follows:

PART 1.

Towed Flourometer at 1 meter
LISST Particle Analysis at various intervals from surface to 550 meters
Dissolved Oxygen at various intervals from surface to 550 meters
CTD – Conductivity, Temperature, and depth at various intervals from surface to 550 meters
Water sampling from surface to 550 meters for PAH analysis
Aerial Visual Observation – Weather Permitting

PART 2.

Cast Flourometer – surface to sea floor
LISST Particle Analysis at various intervals from surface to the sea floor
CTD – Conductivity, Temperature, and depth at various intervals from surface to sea floor
Water sampling from surface to 550 meters for PAH analysis
Aerial Visual Observation
Rototox toxicity testing

UV- Fluorescence testing of Dispersant – Parameter Requirements

PART 3.

Type of Dispersant to be used
Rate of Dispersant Injection
Process for monitoring pump rate
Procedures for FOSC to start and stop injection

Note: Key additions to these protocols added on 14 May as requirements by Addendum I are as follow, but are not limited to the following:

- Sampling of dispersant/oil and oily waters must be continued, and in addition, baseline data of water without direct application of dispersant or oil shall also be collected by BP.
- BP Shall allow EPA/NOAA Scientists flexibility within the sampling plan to direct the collection of additional data based on field observations (at times and locations of their choice).
- BP shall use Turner Designs C3 Flourometer (e.g. SMART protocol) to distinguish between oil impacted surface waters and those not impacted by oil.
- BP shall use a CTD rosette package equipped with CDOM Flourometer and 2-way communication wire to ensure that EPA/NOAA scientists can view profile data as the rosette package is deployed to 1500 meters. In addition, the CDT rosette package must be capable of collecting discrete samples in water column using the live feed data system. The requirements must be met within 7 days for the RV Brooks McCall. All other vessels must immediately meet this requirement.
- BP shall deploy LISST from the vessel for continuous sampling of surface waters during transits, in order to provide particle size counts information which potentially distinguishes between dispersed and non-dispersed oil.
- Discrete water samples shall be taken by BP at predetermined depths as specified or directed by EPA/NOAA scientists for UV fluorescences.
- BP shall provide 48 hour advance notice for departure and trip duration timelines to the FOSC and the EPA RRT Co-Chair.
- Data reporting shall be conducted by BP on a daily basis. This reporting shall include a sample tracking table. Data reporting shall be provided by BP to the FOSC and the EPA RRT Co-Chair.

1.1.3 Evaluation Criteria to Determine Shut-Down of Subsurface Sea Dispersant Application

The Federal On-Scene Coordinator will immediately convene the Regional response Team (RRT) when either of the following conditions are reported:

1. If there is a significant reduction in DO from background to below 2 mg/L; or
2. If EPA's interpretation of the toxicity test reveals excessive exertion of a toxic response. To determine a measurable toxic response, BP must perform a rangefinder test since the collection of the sample will be directly from the toxic plume, and any sample from the plume will likely kill 100% of the test population. Therefore, the rangefinder must first be conducted to determine an order of magnitude dilution that gives a measurable response… EPA and NOAA will interpret the results of toxicity tests to inform determination of a shutdown decision.

1.1.4

Note: Sub-Sea Dispersant application (Operational Phase Chronology) has followed these major start-stop intervals since the approval of Addendum 1 on 14 May which established final sampling and shut-down protocols, agreed upon by USCG and EPA. There have been minor interruptions in this schedule to allow for operational & pumping concerns, but below summary represents the major intervals of operation at an approx rate of 10 gallons per minute when pumping:

Major Start and Stop times for Sub-Sea Dispersant Injection (Operational Phase)

- 0215L Central 15 MAY began pumping at 10 gallon per minute.
- 1419L Central 15 MAY stopped pumping to adjust injection wand. (When it became d dislodged)
- 7222 gallons COREXIT 9500 pumped this time period.

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- 1330L Central 16 MAY began pumping again at 10 gallon per minute.
- 0145L Central 17 MAY stopped pumping to reposition ship due to weather (Surface vessel is flaring and must remain upwind for surface ops) Then sub-surface dispersant injector wand needed to be re-positioned again to proceed.
- 12380 gallons COREXIT 9500 pumped this time period.

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- 1015L Central 17 MAY began pumping again. Duration of operational continuation is TBD.
- 0550L Central 18 MAY stopped pumping since the R/V BROOKS McCALL will be departing and temporarily preclude continuity of required sampling.
- 5250 gallons COREXIT pumped this time period.

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- 0700L Central 19 MAY (was the original expected time to resume sub-sea dispersant injection) as agreed upon by FOSC and EPA.
- 2113L Central 18 MAY (RADM Landry via coordinated discussion with Sam Coleman, as well as EPA (Ms. Dana Tulis, Acting Office Director: Office of Emergency Management) decision made to re-start the Sub-Sea Dispersant injections beginning at 2110L Tuesday 18 MAY. However, when the dispersant surface vessel attempted to move on site, VOC levels were too high, so the vessel had to back off the site and return later. When the vessel returned evening of Tuesday 18 MAY, there was a mechanical issue with the Sub-Sea injection hose system which precluded the ability to resume Sub-Sea dispersant injections. Repairs were implemented and completed whereby injection was re-started for a short time at 0055L Central on Wednesday 19, MAY, and then stopped at 0340 10 gpm with only a total of 163 gallons dispensed this time period. Further details are TBD.

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- 2200 Central 19 MAY continued subsurface dispersant application through 2200 Central 20 MAY
- One disruption of injection from 2145 – 2158
- 14,210 gallons of COREXIT pumped in this time period.
- Injection is still on-going at time of this POLREP Update

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Status of RV BROOKS McCALL:
VSL was O/S during injection application to perform Sampling & Monitoring
The vessel is currently expected to stay O/S thru Saturday in order to provide enough time to coordinate assignment and arrival of a relief vessel to support continued sampling and monitoring efforts.

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- 2200 Central 20 MAY continued subsurface dispersant application through 2200 Central 21 MAY
- No disruptions
- 14,440 gallons of COREXIT pumped in this time period.
- Injection is still on-going at time of this POLREP Update

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Status of RV BROOKS McCALL:
VSL was O/S during injection application to perform Sampling & Monitoring
The vessel departed station at dusk to return to port; expected to arrive early on 22 May; restock, unload samples; expected to depart port late 22 May; arrive back on station early 23 May.
FOSC signed BP Request Waiver, allowing continuation of dispersant application without monitoring vessel present from Friday evening to Sunday morning.

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- 2200 Central 21 MAY continued subsurface dispersant application through 2200 Central 22 MAY
- No disruptions
- 14,130 gallons of COREXIT pumped in this time period.
- Injection is still on-going at time of this POLREP Update

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Status of RV BROOKS McCALL:
Receipt of scintillation tubes and glass bottles will enable maintaining full functionality. Vessel completed refit of cable etc. for 'Real Time' CDT analyses with greater flexibility for picking/taking samples, and left Port Fourchon @ 1600h 5/22 and headed for spill site. New crew members briefed and new equipment/supplies stowed.

Trials of new gear initiated en route @ appx. 0200. Resumed progress to spill site where work will focus on the SW (more specifically WSW) quadrant to further characterize new plume. Expect to be at first station around 0800h.

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- **2200 Central 22 MAY continued subsurface dispersant application through 2200 Central 23 MAY**
- **No disruptions**
- **14,712 gallons of COREXIT pumped in this time period.**
- **Injection is still on-going at time of this POLREP Update**

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Status of RV BROOKS McCALL:
VSL was O/S during injection application to perform Sampling & Monitoring

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- 2200 Central 23 MAY continued subsurface dispersant application through 2200 Central 24 MAY
- No disruptions
- 14,440 gallons of COREXIT pumped in this time period.
- Injection is still on-going at time of this POLREP Update

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Status of RV BROOKS McCALL:
VSL was O/S during injection application to perform Sampling & Monitoring

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- 2200 Central 24 MAY continued subsurface dispersant application through 2200 Central 25 MAY
- Subsea dispersant injection continued until approximately 2000, then restarted at approximately 0430 on 5/26
- 12,766 gallons of COREXIT pumped in this time period. (143,637 gallons cumulative)

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Status of RV Brooks McCall:
- The vessel departed station at dusk to return to port; unload samples

Status of RV Veritas:
- The vessel is in port at Port Fourchon to taken on crew and equipment; expected to depart evening; arrive on station to get sampling by 0800 tomorrow morning.
- Start: 2200 5/25
- Stop: 2200 5/26
- Rate: 10 gpm
- Volume: 11,110 gallons (Total cumulative 155,436 gallons)
- Two disruptions for 21 minutes total.

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- 2200 Central 25 MAY continued subsurface dispersant application through 2200 Central 26 MAY
- Two disruptions for 21 minutes total
- 11,110 gallons of COREXIT pumped in this time period. (155,436 gallons cumulative)

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Status of RV Brooks McCall:

- At port; depart again on 05/29/10 to sampling station

Status of RV Veritas:

- Arrived at station at 0600 on 05/27; depart from station on 05/29
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- 2200 Central 26 MAY continued subsurface dispersant application through 2200 Central 27 MAY
- No disruptions
- 14,400 gallons of COREXIT pumped in this time period. (169,836 gallons cumulative)

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Status of RV Brooks McCall:

- At port; depart again on 05/29/10 to sampling station

Status of RV Veritas:

- On station collecting samples; depart from station on 05/29
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- 2200 Central 27 MAY continued subsurface dispersant application through 2200 Central 28 MAY
- No disruptions
- 14,040 gallons of COREXIT pumped in this time period. (183,832 gallons cumulative)

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Status of RV Brooks McCall:

- At port; depart again on 05/29/10 to sampling station

Status of RV Veritas:

- On station collecting samples; depart from station on 05/29